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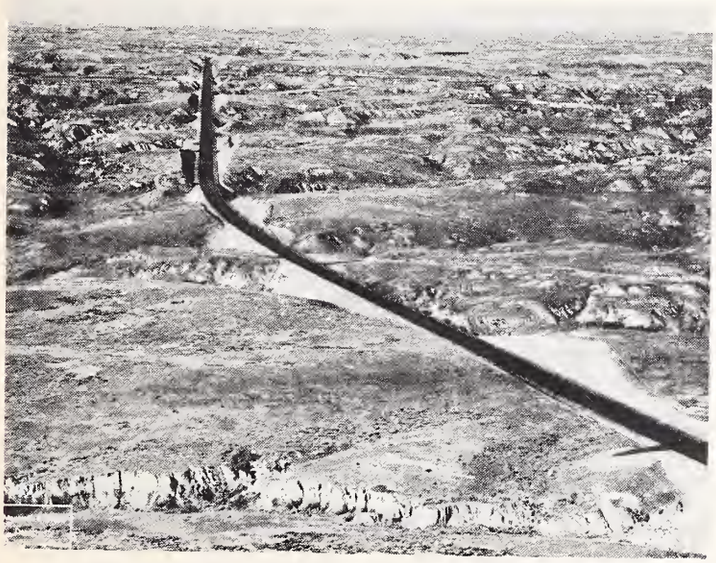
THE CENTER LINE
MONTANA HIGHWAY COMMISSION

Vol. VII., No. 10. October, 1964.

3,000 AT HIGHWAY 24 DEDICATION

A 59-mile section of Highway 24 was dedicated Sunday, October 4, at Flowing Wells. This highway, pictured in the aerial photo, connects Glasgow to Highway No. 20 between Circle and Jordan, and has been 31 years in the building.

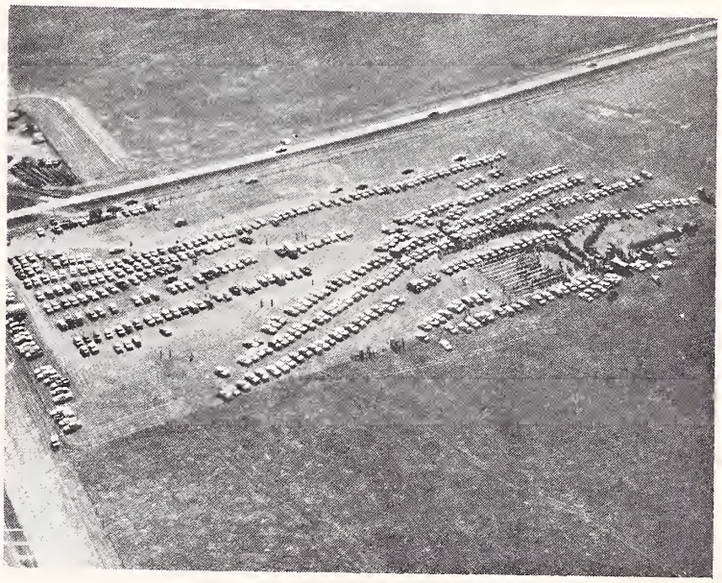


Governor Babcock cut the ribbon and stated while doing so, that the highway will be good for recreation and industry.

Also in attendance were Commissioner Bud Nass of Poplar, E. H. Cowan of the Bureau of Public Roads, George Sime, Director of Information, Bill Brittain, district engineer from Glendive.

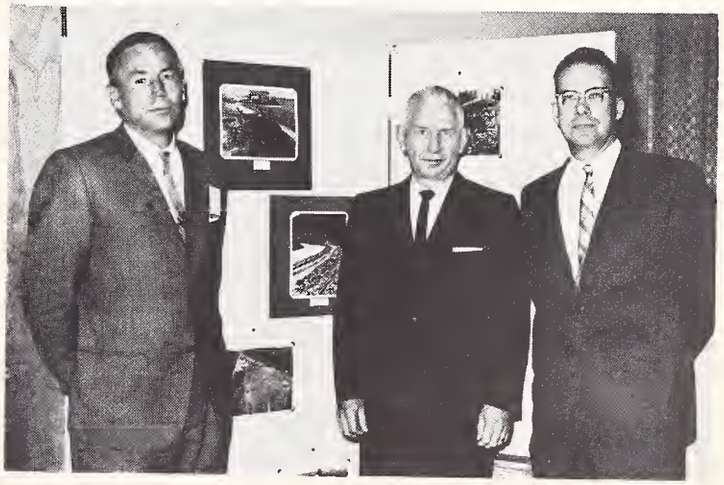
Mayor Willard E. Fraser of Billings was there too, along with Joe Hocking and other Chamber of Commerce representatives from Glasgow.

The 70-piece Glasgow High School Scotty Band furnished music.



Some of the automobiles at the celebration are shown in the photo.

A delicious barbecue followed the dedication ceremonies.



Engineers from the Montana Highway Department and the Bureau of Public Roads participated in the technical sessions of the Annual Meeting, Montana Section, American

Continued on Page 2

GOVERNOR

Tim Babcock

STATE HIGHWAY COMMISSION

Roy L. Sorrells ..... Chairman
S. N. Halvorson ..... Vice-Chairman
J. M. Nass ..... Member
George M. Gosman ..... Member
R. F. Kitchingman ..... Member
John D. Wheeler ..... Secretary

STATE HIGHWAY DEPARTMENT

Paul M. Johnson ..... Acting State Highway Engineer

EDITORIAL STAFF

George T. Sime ..... Editor
Ernest A. Neath ..... Associate Editor
Chet Dreher ..... Photographer
Kenneth L. Martello ..... Artist

Material in the Center Line May Be Copied and Reproduced

Letting of Sept. 30, 1964

Award Sheet Project No.	Amount of Bid	Bidder	Address
I 15-4(25)218 U1 & F 238(10) Wolf Creek-North & Wolf Creek-Augusta (G, GS, PMS, DR, Sign & BRS.) Lewis & Clark County	$ 1,843,885.51	F. & S. Contracting Co.	Butte, Mont.
I 15-4(25)218 U2 Wolf Creek-North (Fencing) Lewis & Clark County	$ 40,039.50	Joseph Yurek	Bozeman, Mont.
I 90-3(12)151 U2 Drummond-East & West (Fencing) Granite County	$ 57,172.00	Western Neon	Kalispell, Mont.
I 94-1(8) 50 & I 94-2(9) 51 Custer Easterly & Hysham W. (Seeding & Mulching) Yellowstone & Treasure Cos.	$ 37,233.73	Loftus Landscaping. Inc.	Kennewick, Wash.
F 64 (10) Great Falls-Armington (Slide Repair) Cascade County	$ 116,278.43	Zook Bros. Const. Co.	Great Falls, Mont.
F 148 (8) Saco-East (Bridges) Valley County	$ 403,722.58	Morgan & Oswood Const. Co., Inc. & Affiliates	Glasgow, Mont.
F 260 (10) W. Glacier-E. Glacier Park (Slide Repair) Flathead County	$ 293,680.10	Neil R. Miller Co.	Missoula, Mont.
S 264(4) East of Van Norman-North (Install SPPC) Garfield County	$ 15,097.00	Walter Mackin & Son	Billings, Mont.
S 410 (3) Northwest of Troy-Yaak River-Rexford (Grade & Drain) Lincoln County	$ 633,562.64	Walter Laas	Chester, Mont.
ROW S 368(16) Glasgow-Opheim-Can. Line (Fencing) Valley County	$ 922.31	Bohleen Constr.	Wilsall, Mont.
ER 53(2) (F 208) Babb-Piegan (Bridge Repair & App.) Glacier County	$ 74,626.50	E. F. Matelich Const. Co., Inc.	Kalispell, Mont.
ER 57(2) (F 236) Dupuyer-Birch Creek (G, GS, BST & DR) Pondera County	$ 36,914.85	Robertson & Blossom, Inc.,	Great Falls, Mont.
ER 59(2) (F 65) Sun River-Choteau (Revise Br. in Place) Teton County	$ 45,899.98	Walter Mackin & Son	Billings, Mont.
ER 59(3) (F 275) Augusta-Choteau (Bridge & Approaches) Teton County	$ 145,000.72	Naranche & Konda Const. Co.	Butte, Mont.
SMP 2120-20-2258-01-23-4050 Secondary Highway 281 So. of Boulder (Pedestrian Crossing) Jefferson County	$ 17,489.90	American Bldg. Co.	Helena, Mont.

ASCE MEETING

Continued from Page 1

Society of Civil Engineers, which was held in Helena on October 2 and 3. Shown from left to right in the photograph above are Roy N. Jones, Engineering Coordinator, Bureau of Public Roads, Leroy W. Hargrove, Hydraulics Engineer, Montana Highway Department, and Jack R. Beckert, Senior Assistant Bridge Engineer, Montana Highway Department.

The June, 1964 floods caused an estimated $12.6 million damage to highways in Montana. $2.7 million of this damage was on the regular Federal-aid systems and will be constructed on a 50% State and 50% Federal basis. About $1 million of the damage was on county roads. The remainder of the damage was to various Federally-constructed roads, including $5.9 million on the forest highway system, and $2.9 million in Glacier Park.

The severe storm which caused the flood was brought about by an almost ideal combination of meteorological factors. New records for stream flow were established for practically all tributaries of the Flathead and Missouri Rivers in the storm area. As an example, the previous record flow for the Marias River at the bridge south of Shelby was 40,000 cubic feet per second recorded in 1948. A maximum flow of 241,000 cubic feet per second was recorded during the 1964 flood. Most of the engineers who participated in the sessions agreed that the probable frequency of occurrence of a flood of this magnitude would be 100 years or more.

Because highway engineers are constantly aware of the damage that floods can do, the flood will cause no radical changes in design. The damage done by the flood placed renewed emphasis on some of the basic principles of engineering. In the future, structures in the flood area will be designed for somewhat higher peak flow. A number of the bridge failures were the result of scouring action under spread footings. The use of bearing piles and in some cases use of long steel bearing piles driven through shallow shale formations is dictated to avoid damage of this kind. Very large amounts of drift and debris were torn loose by the flood and de-

posited along stream banks. This loosened debris constitutes a potential threat to many down-stream bridges and emphasizes the need for long clear spans to allow passage of maximum amounts of debris.

A LETTER FROM CHARLIE

8 October, 1964

To the Personnel of the Montana
Highway Department:

Last Monday night I was treated to a very nice dinner and was presented with a very fine gift as a "retirement gift". A very nice card, signed by numerous friends accompanied the gift.

I want to assure all of you that I thoroughly enjoyed my association with the personnel of the Department and appreciate, very much, the cooperation extended to me during the many years.

So, I must truthfully write you—*thanks a million!*

CHARLIE KING

We all wish you the best, Charlie. Come back and visit us once in a while.—Ed.

Minnie V. Convery was honored at an informal retirement dinner on the 28th of July, at the East Helena Volunteer Fire Department recreation hall. Some 80 M. H. D. employees saw Minnie receive a gift on behalf of the Montana Highway Employees Benefit Association, by R. H. Gagle, Materials Engineer. Minnie was employed in the materials section for some twenty years.

While her home is at 1123 Breckenridge, she is at present touring the United States.

Emcee duties were very capably handled by Wm. E. Ashton, Assistant Materials Engineer, a long time personal friend of Minnie's.

HIGHWAY HUMOR

The last time Clarence Christenson made coffee in the R/W Department, some of the remarks heard were: "As soon as the temperature rises four degrees, we can put this in the distributor and start shooting."

NEW MHEBS OFFICERS ELECTED

The results of the recent election for board members for the Montana Highway Employees Benefit Association show P. E. (Peanuts) Thompson, Jr., with 143 votes, followed byl Tan Lee with 119, Richard Ronan 112, Harry Sing 111, and Larry Hanson 93.

The new trustees assumed office on October 12. Election tellers were Dick Rogers, Gerald Robinson and Ross McNamara.

While Jack Poole holds the lariat, Commission Chairman Sorrells wields the knife which severed the rope to officially dedicate the newly-completed portion of U. S. No. 12 at Townsend on September 29. Besides Roy Sorrells, Commissioners Nass, Kitchingman and Gosman were present to assist in the ceremonies which included a new main street and curbings in Townsend, and a new highway east into Deep Creek valley.

Poole represented not only the R/W department of the MHD, but the Townsend Chamber of Commerce as well.

Centerline salutes the quick-thinking actions of Lloyd Heinz, a shop employee in the Lewistown MHD.

Heinz is credited with saving the life of Roger Duncan by jamming a crow-bar between the box and frame of a dump truck, just in time to prevent crushing Duncan's head as he was making repairs to the truck.

Governor Babcock speaks to the crowd at the Butte Interstate dedication. Seated behind him are George Gosman and Stan Halvorson, Highway Commissioners; Wm. E. Murray, Pres. Butte Chamber of Commerce; George Schotte, Member of the Butte Chamber of Commerce Highway Committee; Fred Quinnell, Jr., former State Highway Engineer; Mayor Tom Powers of Butte; and County Commissioner Dan O'Donnell.

Fred Quinnell, Jr., former State Highway Engineer, cuts the copper ribbon at the Butte Interstate Dedication.

Tom Ratchford, Maintenance Engineer, reports that on October 13, notification was given to the news services, radio, TV and newspapers that, effective October 19, the road condition reports would be available from the M. H. D each morning, Monday through Friday, at 8:30 a. m.

In addition to the 5-day week report, severe or unusual conditions will be given to the news services throughout the day.

Local press and radio may contact their division offices to make arrangements to secure local road information as early in the morning as practical. State-wide reports will be available from division offices at about 9:30 a. m. daily.

MONTANA BOY MAKES GOOD

Ye editor, in perusing the publication of the Washington Highway Department, noted an article about *Bob Mikalson*, who is currently serving as labor representative for the Washington Highway Commission.

Mikalson went to a log cabin school at Glen Lake, Montana. In 1939 he entered Montana State College, but was called for military duty.

As a college student in the Treasure State, he devoted his summers to construction jobs that concerned highways and bridges, and helped earn his way through college.

RECODIFICATION OF HIGHWAY LAWS REPORT COMPLETED

Gardner Cromwell, of the Montana State University Law school, appeared before the Commission last meeting, and presented the completed report on recodification of Highway Laws, court decisions and attorney general opinions.

The 11-section report is termed "A modern compilation of highway laws," and was researched by a number of MSU law students.

One of the concerns of the report is to bring order and clarity to the state's highway laws, which now in many cases, are clouded with ambiguities, conflicts and omissions.

In the photo above, Cromwell is explaining the report to State Highway Engineer Paul M. Johnson, while Commission attorney Donald D. MacPherson (l.) and Planning Survey Manager, Howard Buswell (r.) look on.

MAP INDEX NUMBER	PROJECT NUMBER	PROBABLE COMPLETION DATE	LENGTH, TYPE OF CONSTRUCTION AND LOCATION
	FEDERAL AID PRIMARY PROJECTS		
101	F 33 (6) & F 108 (9)	12-31-64	8.0 miles grade, drain, aggregate & plant mix bituminous surface. (U.S. 87 - S. of Roundup).
102	F 238 (10)	10-31-66	1.9 miles grade, drain, aggregate & plant mix bituminous surface. Sign. (Montana 287 - Wolf Creek N.).
103	F 64 (10)	10-31-65	0.2 mile repair of slide drainage. (U.S. 87 - S. of Belt).
104	F 239 (13)	9-16-65	2.2 miles (0.1 mile Portland Cement concrete pavement) grade, drain, aggregate surface & plant mix bituminous surface. (U.S. 12 - White Sulphur Springs N.E.).
	F 8 (11)	9-16-65	5.2 miles grade, drain, aggregate surface & plant mix bituminous surface. Widen 25 ft. timber bridge - Four Mile Creek to 40 ft. roadway. (U.S. 12 - White Sulphur Springs N.E.).
105	F 262 (14)	7-15-65	9.6 miles grade, drain, aggregate & plant mix bituminous surface. Two prestressed concrete beam bridges. One 102 ft. - Thompson Creek. One 142 ft. - Little Missouri River. (U.S. 212 - Wyoming Line N.W.).
106	F-FG 68 (12) U 1	12-31-64	2.7 miles (four-lane divided) grade, drain, surface, plant mix bituminous surface. Signing & delineation. (U.S. 10A-E. of Anaconda).
107	F 134 (6)	12-31-64	0.7 miles grade, drain, surface & plant mix bituminous surface. (U.S. 212 - Laurel S.).
	F 134 (7)	12-31-64	0.7 miles signing & delineation. (U.S. 212 - Laurel S.).
108	F 219 (18)	12-31-64	0.2 miles grade, drain, aggregate & plant mix bituminous surface. One 65 ft. prestressed concrete beam bridge - Rattlesnake Creek. (U.S. 10 - In Missoula).
109	F 220 (8)	7-16-65	3.3 miles grade, drain, aggregate surface, & plant mix bituminous surface. (U.S. 2 - E. of Cut Bank).
	F 154 (6)	7-16-65	4.2 miles grade, drain, aggregate surface, & plant mix bituminous surface. (U.S. 2 - E. of Cut Bank).
110	F 148 (8)	6-30-65	Three prestressed concrete beam bridges. One 172 ft. - Beaver Creek. One 355 ft. - Milk River. One 143 ft. - Milk River Overflow. (U.S. 2 - E. of Saco).
111	F 149 (19) & F 252 (15)	12-31-64	9.8 miles, grade, drain, surface & plant mix bituminous surface. (U.S. 87 - S.W. of Fort Benton).
112	F 191 (24)	8-31-65	5.9 miles grade, drain, aggregate & plant mix bituminous surfacing. (U.S. 93 - S. of Kalispell).
113	F 217 (11)	10-15-65	9.2 miles grade, drain, aggregate & plant mix bituminous surface. Relocation portion of NP RY tracks. (U.S. 89 - S. of Livingston).
114	F 205 (8) U 1	10-31-66	1.3 miles grade, drain, aggregate & plant mix bituminous surface. Signing. (U.S. 10A - New alignment - Drummond South)
	F 205 (8) U 2	10-31-65	Three prestressed concrete beam structures. One 301 ft. - Clark Fork. One 163 ft. - CMSTP&P RR. One 188 ft. - NP RY. (U.S. 10A - New alignment - Drummond South).
115	U FG 228 (16)	12-31-64	1.5 miles grade, drain, cement stabilized base, surface, concrete pavement, plant mix bituminous, seal coat oil. One concrete underpass - NP RR. (U.S. 10 - In Billings).
	F 228 (19) U 1	12-31-64	0.6 miles grade, drain, aggregate & plant mix bituminous surface. Signing & delineation. (U.S. 10 - West Billings Interchange).
	F 228 (19) U 2	12-31-64	0.6 miles fencing. (U.S. 10 - West Billings Interchange).
116	F 260 (10)	7-1-65	0.5 mile grade, drain, aggregate & road-mix bituminous surface. Support wall for slide area correction. (U.S. 2 - E. of West Glacier).
117	F 115 (14)	8-4-65	8.6 miles grade, drain, aggregate & plant mix bituminous surface. Signing & lighting. (U.S. 12 - Harlowton E.)
118	F 149 (20)	12-31-64	0.4 miles signing & delineation. (U.S. 87 - N. of Great Falls).
	F 395 (3) & F 395 (5)	12-31-64	1.5 miles signing & delineation. (14th & 15th St. - In Great Falls).
	U-FG 395 (6) U 2	12-31-64	0.2 miles fencing. (14th & 15th St. - In Great Falls).
	F 149 (21) & F 395 (9)	6-1-65	Lighting & signals. (U.S. 87 & ByPass Junction - Great Falls).
	F 180 (7)	6-1-65	Lighting & signals. (U.S. 87 - E. of Great Falls).
119	F 193 (16)	9-15-65	1.6 miles grade, drain, aggregate & plant mix bituminous surface. (Montana 5 - In Plentywood).
120	F 114 (6)	12-31-64	2.4 miles signing & delineation. (U.S. 10 - Hysham connection to Interstate 94).
121	F 219 (20)	12-31-64	9.8 miles seal coat oiling. (U.S. 10A - N.W. of Missoula).
122	F 9999 (1)	12-31-64	119 miles signing. (U.S. 10, 10A, & 93 - Missoula to Kalispell).
123	F 191 (20) U 1	12-31-64	7.3 miles (2.5 miles grade & drain) surface, plant mix bituminous & seal coat oiling. (U.S. 93 - N. of Polson).
124	F 246 (13)	12-31-64	9.2 miles grade, drain, aggregate & plant mix bituminous surfacing. (Montana 200 - S.E. of Circle).
125	F 2 (17)	12-31-64	24.4 miles aggregate & plant mix bituminous surfacing. (Montana 7 - N. of Baker).
126	ER 59 (3)	7-31-65	One 183 ft. prestressed concrete beam bridge - Deep Creek. Road approaches. (Montana 287 - S. of Choteau).
127	F 184 (15)	12-31-64	1.1 miles seeding & mulching. (U.S. 10 - N. of Deer Lodge).
128	ERFO 41 (1) **	1964	1.0 mile grade, drain, aggregate & plant mix bituminous surfacing. One 36 ft. concrete slab bridge - Cougar Creek. (U.S. 191 - N. of W. Yellowstone).
129	F 251 (11)	9-15-65	7.6 miles grade, drain, aggregate & plant mix bituminous surface. (Montana 5 - Scobey E.).
130	F 27 (6) & F 28 (5)	9-15-65	6.1 miles grade, drain, aggregate & plant mix bituminous surface. (U.S. 87 - S. of Grass Range).
131	F 43 (17)	12-31-64	15.9 miles plant mix bituminous surface. (Montana 43 - N. of Wisdom).
132	F 53 (13) & F 230 (9)	12-31-64	2.1 miles, four-lane median divided grade, drain, aggregate & plant mix bituminous surface. (U.S. 10 - Billings E.).
133	F 249 (16)	12-31-64	7.4 miles aggregate & plant mix bituminous surfacing. (U.S. 12 - E. of Garrison).
134	F 176 (7)	12-31-64	5.3 miles grade, drain, surface & plant mix bituminous surfacing. (Montana 20 - E. of Simms).
140	F 209 (4)	12-31-64	5.5 miles grade, drain, aggregate & plant mix bituminous surface. Four 20 ft. concrete bridges. (U.S. 191 - W. of Bozeman).
	FEDERAL AID SECONDARY PROJECTS		
201	S 311 (5)	12-31-64	0.9 miles grade, drain, aggregate & road mix bituminous surface. One 213 ft. prestressed concrete beam bridge - Milk River. (S. of Chinook
	S 340 (8)	8-15-65	4.4 miles grade, drain, aggregate & plant mix bituminous surface. (S. of Chinook).
202	S 58 (6)	8-31-65	1.1 miles grade, drain, aggregate & plant mix bituminous surface. One 650 ft. welded steel plate girder bridge - Flathead River. One 128 ft. prestressed concrete beam overpass - NP RY. (Perma North).
203	R - AD 11 (1) & S 368 (16)	9-15-65	14.9 miles grade, drain, aggregate & plant mix bituminous surface. Widen to 30 ft. roadway bridge over East Fork Cherry Creek. (Glasgow N.).
	S 368 (16)	9-15-65	14.9 miles fencing. (Glasgow N.).
204	S 316 (11)	12-31-64	7.6 miles grade, drain, aggregate & plant mix bituminous surfacing. (N. of Cut Bank).
205	S 318 (4) & S 347 (11) *	8-31-65	8.2 miles grade, drain, aggregate & plant mix bituminous surfacing. (Ekalaka S.).
206	S-SG 192 (4) U 1	12-31-64	1.0 miles grade, drain, aggregate & plant mix bituminous surface. Signing & delineation. (Connection to W. Billings Interchange).
	S-SG 192 (4) U 2	12-31-64	1.0 mile fencing. (Connection to W. Billings Interchange).
	S-SG 192 (5)	12-31-64	One 190 ft. prestressed concrete beam overpass - NP RY. (S.W. of Billings).
207	S 238 (4) & S 411 (3)	8-15-65	7.9 miles grade, drain & aggregate surface. (S. of Circle).
208	S 18 (6)	12-31-64	7.3 miles grade, drain, aggregate & plant mix bituminous surface. One 112 ft. prestressed concrete beam bridge - Musselshell River. (Twodot S.).
209	FHP 11-1 (2) *	1964	32.5 miles plant mix bituminous surfacing. (U.S. 12 - Lolo to Idaho State Line).
210	S 2 (7)	6-15-65	6.2 miles aggregate & plant mix bituminous surface. (Junction Montana 20 E.).
211	ERFO 41 (1) **	1964	15.6 miles grade, drain, aggregate & plant mix bituminous surfacing. Two concrete slab bridges, 75 ft. - Grayling Creek & 124 ft. - Beaver Creek. Widen 83 ft. concrete girder bridges - Cabin Creek. (N.W. of W. Yellowstone).
212	S-SG 218 (2)	9-30-65	0.6 miles grade, drain, aggregate & plant mix bituminous surfacing. One 34 ft. concrete underpass - Dakota Street. Two 38 ft. steel underpasses - CMSTP&P RR. (Russell St. - S. of Missoula).
	S - 218 (7)	12-31-64	1.0 miles grade, drain, aggregate & plant mix bituminous surface. (Russell St. - S. of Missoula).
213	S 301 (13)	12-31-64	5.0 miles grade, drain, aggregate & plant mix bituminous surface. (N.W. of Havre).
214	S 65 (7)	12-31-64	4.9 miles aggregate & plant mix bituminous surface. (S. of Big Fork).
215	ROW S 370 (13)	12-31-64	Reset 239 rods of fencing. (W. of Wilsall).
	S 370 (15)	12-31-64	6.7 miles grade, cement stabilized base, drain, plant mix bituminous & seal coat oiling. (W. of Wilsall).
216	S 307 (14)	12-31-64	6.1 miles grade, drain, aggregate & plant mix bituminous surface. Widen three timber bridges to 28 ft. - Little Battle Creek, two 75 ft. - Butte and Cowboy Steel Creek. (S.E. of Geraldine).
	S 307 (15)	7-15-65	5.1 miles grade, drain, aggregate & plant mix bituminous surface. (S.E. of Geraldine).
217	S 264 (4)	12-31-64	Install 120" Structural Plate Pipe. (N. of Van Norman).
218	S 417 (3)	12-31-64	7.3 miles grade, drain, aggregate & plant mix bituminous surface. (S.E. of Plentywood).
219	S 85 (00) U 2 & S 85 (3) U2	12-31-64	Three prestressed concrete beam bridges. One 92 ft. & 71 ft. - Horse Prairie Creek. One 71 ft. - Medicine Lodge Creek. (Armstead W.).
220	S 192 (7)	12-31-64	3.2 miles grade, drain, aggregate & plant mix bituminous surface. (N.E. of Laurel).
221	S 410 (3)	9-1-65	6.6 miles grade and drain. (N. of Troy).
224	S 413 (3)	12-31-64	1.9 miles grade, drain, aggregate & plant mix bituminous surface. One 102 ft. prestressed concrete beam bridge - Flint Creek. (S. of Drummond E.).
	S 414 (3)	12-31-64	2.5 miles grade, drain, aggregate & plant mix bituminous surface. (S. of Drummond W.).
	S 413 (2)	12-31-64	1.9 miles fencing. (S. of Drummond E.).
	S 414 (2)	12-31-64	2.5 miles fencing. (S. of Drummond W.).
227	S 407 (2)	12-31-64	0.3 miles grade, drain & aggregate surface. One 457 ft. welded steel plate girder bridge - Clark Fork. (S.E. of Alberton).
229	S 419 (3)	11-15-65	0.9 miles grade, drain, aggregate surface. 0.7 miles plant mix bituminous surface. (Approach I 90 Separation - W. of Alberton).
236	S 9 (10)	12-31-64	3.7 miles reshape, aggregate & plant mix bituminous surface. (S. of Boulder).
237	S 107 (9)	12-31-64	7.0 miles grade, drain, aggregate & plant mix bituminous surface. Widen timber bridge to 32 ft. roadway. (N.E. of Conrad).
238	S 400 (3)	12-31-64	6.4 miles grade & drain. (S. of Hamilton E.).
	S 400 (4)	12-31-64	6.4 miles aggregate & plant mix bituminous surface. (S. of Hamilton E.).
239	S 426 (3)	12-31-64	One 198 ft. prestressed concrete beam bridge - Gallatin River. (N.E. of Manhattan).
240	S 415 (3)	12-31-64	6.0 miles grade, drain, aggregate surface. One 92 ft. prestressed concrete beam bridge - Lake Creek. (E. of Medicine Lake).
241	S 194 (4)	6-30-65	0.3 miles grade, drain, aggregate surface. One 225 ft. prestressed concrete beam bridge - Boz Elder Creek. (E. of Ekalaka).
242	S 243 (3)	7-31-65	6.5 miles grade, drain, aggregate & plant mix bituminous surface. (S. of Bozeman).
243	S 388 (5)	9-15-65	9.5 miles grade, drain, & aggregate surface. (NE. of Miles City).
244	US 70 (4)	12-31-64	0.7 miles grade, drain, aggregate & plant mix bituminous surface. (Fifth Avenue in Havre).
248	S 402 (3)	12-31-64	7.8 miles grade, drain, surface, plant mix bituminous & seal coat oiling. (N.E. of Culbertson).
	OFF SYSTEM PROJECTS		
301	GNP 8-A4 *	1965	One 403 ft. prestressed concrete beam bridge - N. Fk. Flathead River. (In Glacier Park).
	GNP 8-A5 *	1965	8.5 miles grade, drain & base. (In Glacier Park).

* - Bureau of Public Roads Projects.
** - Bureau of Public Roads Projects. - Map Index Numbers 128 & 211 one contract.

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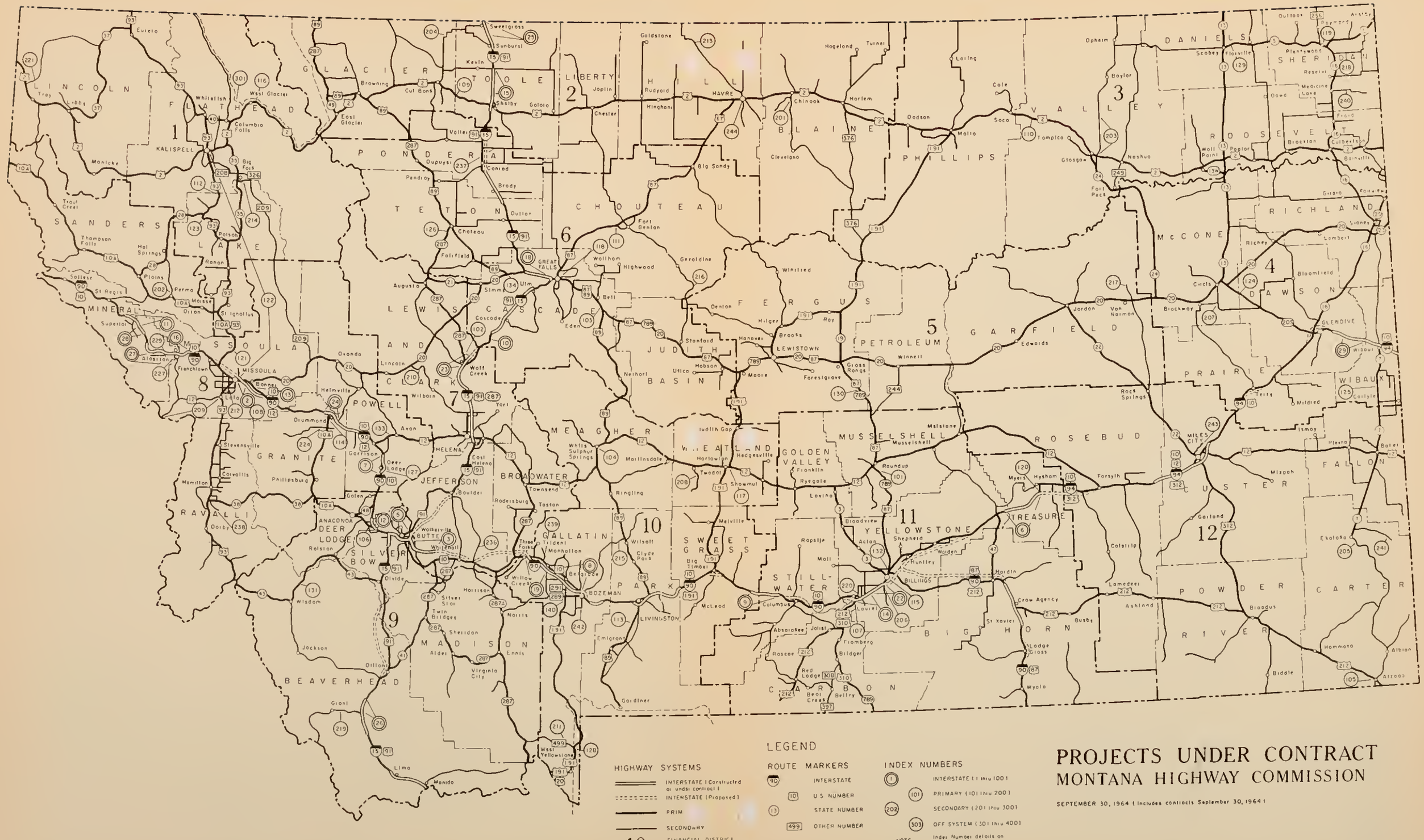


LEGEND

HIGHWAY SYSTEMS

- INTERSTATE (Constructed or under contract)
- INTERSTATE (Proposed)
- PRIM
- SECONDARY
- 10 FINANCIAL DISTRICT NUMBER

ROUTE MARKERS

- 90 INTERSTATE
- 10 U.S. NUMBER
- 13 STATE NUMBER
- 499 OTHER NUMBER

INDEX NUMBERS

- (1) INTERSTATE (1 thru 100)
- (101) PRIMARY (101 thru 200)
- (202) SECONDARY (201 thru 300)
- (303) OFF SYSTEM (301 thru 400)

NOTE Index Numbers details on reverse of sheet

PROJECTS UNDER CONTRACT
MONTANA HIGHWAY COMMISSION

SEPTEMBER 30, 1964 (Includes contracts September 30, 1964)

MAP INDEX NUMBER	PROJECT NUMBER	PROBABLE COMPLETION DATE	LENGTH, TYPE OF CONSTRUCTION AND LOCATION
	FEDERAL AID INTRASTATE PROJECTS		
2	I 90-2 (14) 105	12-31-64	472 ft. of 24 inch R.C.P. Storm Sewer. (Van Buren St. - In Missoula).
	I-IG 90-2 (14) 105 U 1	10-15-65	4.9 miles grade, drain, cement base stabilization, aggregate surface, Portland Cement concrete pavement and plant mix bituminous surface. One 88 ft. steel & concrete NP RY overpass - Van Buren Street. Signing & lighting. (New alignment I 90 - Missoula E.).
	I-IG 90-2 (14) 105 U 4	10-15-65	4.9 miles fencing. (New alignment - I 90 - Missoula E.).
	I-IG 90-2 (14) 105 U 2	6-30-65	Three dual prestressed concrete beam overpasses. Two 165 ft. - Van Buren St. Interchange. Two 194 ft. - East Missoula Interchange, Two 126 ft. - County Road Separation. (New alignment - I 90 - Missoula E.).
3	I 90-4 (8) 226 U 1	9-30-65	2.8 miles four lane divided, grade, drain, cement stabilized base, aggregate surface, plant mix bituminous surface & concrete pavezant. (New alignment - I 90 - Butte S.E.).
	I 90-4 (8) 226 U 2	9-30-65	2.8 miles fencing. (New alignment - I 90 - Butte S.E.).
	I 90-4 (8) 226 U 3	12-31-64	One 246 ft. prestressed concrete beam underpass - County Road Separation. (New alignment - I 90 - Butte S.E.).
	I 90-4 (10) 229 U 1	8-30-66	2.6 miles four lane divided, grade, drain, aggregate surfaces, plant mix bituminous surface. Signing. (New alignment - I 90 - Butte S.E.).
	I 90-5 (6) 231 U 1	8-30-66	2.3 miles four lane divided, grade, drain, aggregate surface, plant mix bituminous surface. One 230 ft. prestressed concrete beam underpass. Homestake Interchange. Signing. (New alignment - I 90 - Butte S.E.).
	I 90-5 (7) 233 U 1	8-30-66	7.1 miles four lane divided, grade, drain, aggregate surface, plant mix bituminous surface. Dual 123 ft. prestressed concrete beam overpass - Pipestone Interchange. (New alignment - I 90 - Butte S.E.).
	I 90-4 (10) 229 U 2	9-30-65	2.6 miles fencing. (New alignment - I 90 - Butte S.E.).
	I 90-5 (6) 231 U 2	9-30-65	2.3 miles fencing. (New alignment - I 90 - Butte S.E.).
	I 90-5 (7) 233 U 2	9-30-65	7.1 miles fencing. (New alignment - I 90- Butte S.E.).
5	I-IG 15-2 (16) 126 U 2 & I 115-2 (2) 126 U 2	12-31-64	Five structures. Two prestressed concrete beam overpasses. One 301 & 321 BASP RY. & CMSTP&P RY. Three steel & concrete overpasses. One 442 & 489 ft. NP RY. & Clark Fork. One 244 ft. W. Butte Interchange. (I 15 - Butte W.).
	I-IG 15-2 (16) 126 U 3	12-31-64	2.2 miles fencing. (I 15 - Butte W.).
	I 115-2 (2) 126 U 3	12-31-64	0.4 miles fencing. (I 15 - Butte W.).
	I-IG 15-2 (16) 126 U 4	12-31-64	Dual 463 ft. steel & concrete overpasses - NP RY & CMSTP&P RR. (I 15 - Butte W.).
	I-IG 15-2 (18) 131 U 1	7-31-66	3.6 miles grade, drain, cement stabilized base, aggregate & plant mix bituminous surfacing. One 230 ft. steel & concrete overpass NP RY. Signing. (New alignment I 15 - Butte N.E.).
	I-IG 15-2 (18) 131 U 2	9-30-65	3.6 miles fencing. (New alignment - I 15 - Butte N.E.).
	I 15-2 (14) 126	12-31-64	5.5 miles signing, delineation & lighting. (I 15-W. of Butte E.).
6	I 94-1 (7) 50	12-31-64	1.3 miles signing & delineation. (New alignment - S.W. of Hysham).
	I 94-1 (8) 50	5-15-65	1.3 miles grass seeding & mulching. (New alignment - I 94 - S.W. of Hysham).
	I 94-2 (5) 55 U 1	12-31-64	5.4 miles (4.0 miles four-lane divided) grade, drain, surface, plant mix bituminous surfacing. (New alignment I 94 - S.W. of Hysham).
	I 94-2 (5) 55 U 2	12-31-64	6.4 miles fencing. (New alignment - I 94 - S.W. of Hysham).
	I 94-2 (7) 51	12-31-64	16.2 miles signing & delineation. (New alignment - I 94 - S.W. of Hysham).
	I 94-2 (9) 51	5-15-65	16.2 miles grass seeding & mulching. (New alignment - I 94 - S.W. of Hysham).
7	I 90-3 (11) 180	12-31-64	8.2 miles seeding & mulching. (U.S. 10 - W.&S. of Deer Lodge).
8	I 90-6 (13) 296 U 1	9-15-65	8.4 miles grade, drain, cement base stabilization, aggregate surface, Portland Cement concrete pavement & plant mix bituminous surface. Four prestressed concrete beam structures. Dual 113 ft. overpass - County Road. Dual 245 ft. underpasses - U. S. 10 West Bozeman Interchange. (New alignment - I 90 - Belgrade to Bozeman).
	I 90-6 (13) 296 U 2	9-15-65	8.4 miles fencing. (New alignment - I 90 - Belgrade to Bozeman).
	I-IG 90-6 (12) 287 U 1	9-30-65	9.5 miles four lane divided, grade, drain, cement stabilized base, aggregate surface, Portland Cement concrete pavement & plant mix bituminous surface. Signing. (New alignment - I 90 - Manhattan to Belgrade).
	I 90-6 (13) 296 U 3	9-30-65	8.4 miles signing. (New alignment - I 90 - Belgrade to Bozeman).
	I-IG 90-6 (12) 287 U 2	9-30-65	9.5 miles fencing. (New alignment - I 90 - Manhattan to Belgrade).
	I-IG 90-6 (12) 287 U 3	7-31-65	Five prestressed concrete beam structures. Dual 113 ft. Herb Lane Separation. Dual 113 ft. Central Park South Separation. One 235 ft. Belgrade Interchange. (New alignment - Manhattan to Belgrade).
	I-IG 90-6 (12) 287 U 4	7-31-65	Six prestressed concrete beam structures. Dual 82 ft. Camp Creek. Dual 92 ft. Baker Creek. Dual 205 ft. West Gallatin River. (New alignment - I 90 - Manhattan to Belgrade).
9	I 90-7 (8) 387 U 3	12-31-64	5.9 miles fencing. (U.S. 10 - W. of Columbus).
	I-IG 90-8 (12) 388 U 4	12-31-64	4.6 miles fencing. (U.S. 10 - W. of Columbus).
	I 90-7 (13) 387 & I 90-8 (21) 388	5-15-65	10.5 miles seeding & mulching. (U.S. 10 - W. of Columbus).
10	I 15-5 (25) 238	12-31-64	15'4" S. x 10'4" R. Structural Plate Pipe arch culvert. (U.S. 91 - N. of Wolf Creek).
11	I 90-1 (16) 43	12-31-64	6.7 miles seeding & mulching. (U.S. 10 - W. & S. of Superior).
12	I-IG 90-4 (7) 205 U 1	12-31-64	4.5 miles four-lane divided, grade, drain, cement stabilized base, surface & plant mix bituminous surfacing. Frontage roads. Rest areas, signing & delineation. (U.S. 10 - S. of Deer Lodge).
	I-IG 90-4 (7) 205 U 3	12-31-64	4.5 miles fencing. (U.S. 10 - S. of Deer Lodge).
13	I-IG 90-2 (10) 110 U 1	12-31-64	4.3 miles four-lane divided, grade, drain, surface & plant mix bituminous surfacing. (New alignment I 90 - W. of Bonner E.).
	I-IG 90-2 (10) 110 U 2	12-31-64	4.3 miles fencing. (New alignment - W. of Bonner E.).
	I 90-2 (20) 110	12-31-64	9.2 miles signing & delineation. (New alignment - I 90 - W. of Bonner E.).
	I 90-2 (22) 108	5-31-65	Four continuous welded steel plate girder bridges - Dual 455 ft. & dual 404 ft. - Clark Fork. (New alignment - I 90 - W. of Bonner E.,.
14	I-IG 90-8 (17) 433 U 1	12-31-64	5.3 miles four-lane divided, grade, drain, surface, plant mix bituminous surface. Weigh Station. (New alignment - I 90 - Laurel E.).
	I-IG 90-8 (17) 433 U 3	12-31-64	5.3 miles fencing. (New alignment - I 90 - Laurel E.).
	I 90-8 (24) 433	12-31-64	5.3 miles signing & delineation. (New alignment - I 90 - Laurel E.).
15	I 15-8 (14) 357 U 1	12-31-64	12.0 miles grade, drain, surface, plant mix bituminous surface, rest area & signing. (U.S. 91 - N. of Shelby).
	I 15-8 (15) 357	12-31-64	12.0 miles seeding & mulching. (U.S. 91 - N. of Shelby).
16	I-IG 90-2 (18) 82	12-31-64	One 981 ft. welded steel plate girder bridge - Clark Fork & CM&TP&P RR. (U.S. 12 - E. of Alberton).
	I-IG 90-2(21) 80 U 1	12-31-64	4.3 miles (2.6 miles four-lane divided) grade, drain, surface, plant mix bituminous surface. Signing. (U.S. 10 - E. of Alberton).
	I-IG 90-2 (21) 80 U 2	12-31-64	4.3 miles fencing. (U.S. 10 - E. of Alberton).
18	I-IG 15-5 (20) 273	6-1-65	3.0 miles four-lane divided, grade & drain. (New alignment - I 15 - In Great Falls).
	I 15-5 (22) 273	11-30-65	Dual 483 ft. prestressed concrete beam bridges - Sun River. (New alignment-I 15-In Great Falls).
19	I-IG 90-6 (10) 282 U 1	12-31-64	5.0 miles four-lane divided, grade, & drain. Three prestressed concrete beam structures. Dual 158 ft. - CMSTP&P RR. One 235 ft. - Manhattan Interchange. (U.S. 10 - E. of Three Forks).
	I-IG 90-6 (10) 282 U 2	12-31-64	5.0 miles fencing. (U.S. 10 - E. of Three Forks).
	I-IG 90-6 (15) 276	12-31-64	10.5 miles cement stabilized base, aggregate surfacing, concrete pavezent & signing. (U.S. 10 - E. of Three Forks).
	IG 90-6 (11) 287	12-31-64	Dual 163 ft. prestressed concrete beam overpasses NP RY. (U.S. 10 - E. of Three Forks).
22	I 90-8 (11) 444	12-31-64	Dual prestressed concrete beam bridges, 185 & 205 ft. - West Billings Interchange. (U.S. 10 - S.W. of Billings).
	I 90-8 (25) 438	12-31-64	6.1 miles signing & delineation. (U.S. 10 - S.W. of Billings).
	I 90-8 (14) 443 U 1	12-31-64	1.2 miles grade, drain, aggregate & plant mix bituminous surface. Signing & delineation. (U.S. 10 - West Billings Interchange).
	I 90-8 (14) 443 U 2	12-31-64	1.2 miles fencing. (U.S. 10 - West Billings Interchange).
23	I 15-4 (18) 210 U 1 & I 15-4 (21) 210	12-31-64	2.1 miles four-lane divided, grade, drain, surface, plant mix bituminous surfacing & signing. (U.S. 91 - S. of Wolf Creek).
	I 15-4 (18) 210 U 2	12-31-64	2.1 miles fencing. (U.S. 91 - S. of Wolf Creek).
	I 15-4 (20) 212 U 1	12-31-64	5.8 miles grade, aggregate surface, plant mix bituminous surfacing & signing. Rest Area. (U.S. 91 - Wolf Creek S.).
	I 15-4 (20) 212 U 2	12-31-64	5.8 miles fencing. (U.S. 91 - Wolf Creek S.).
	I 15-4 (20) 210	12-31-64	Dual 519 ft. Steel Bridge - Little Prickly Pear Creek. (U.S. 91 - Wolf Creek S.).
	I 15-4 (25) 218 U 1	10-31-66	2.7 miles four lane divided, grade, drain, aggregate & plant mix bituminous surface. Sign. Dual 113 ft. prestressed concrete beam overpass - Wolf Creek Interchange. One 90 ft. steel bridge - Little Prickly Pear Creek on approach to Wolf Creek Interchange.
	I 15-4 (25) 218 U 2	10-31-66	One 190 ft. steel underpass - Augusta Interchange. (New alignment - I 15 - Wolf Creek N.E.).
24	I 90-3 (12) 151 U 1	10-31-66	2.7 miles fencing. (New alignment - I 15 - Wolf Creek N.E.).
	I 90-3 (12) 151 U 2	10-31-65	6.7 miles grade, drain, aggregate & plant mix bituminous surface. Signing. Weigh Station. (I 90 & U. S. 10 - Drummond Section).
	I 90-3 (12) 151 U 3	10-31-65	6.7 miles fencing. (I 90 & U.S. 10 - Drummond Section).
			Four dual prestressed concrete beam overpasses. Dual 123 ft. - West Drummond Interchange. Dual 128 ft. - Edwards Gulch Separation. Dual 133 ft. - East Drummond Interchange. Dual 128 ft. - Other Route 271 Separation. (I 90 & U.S. 10 - Drummond Section).
25	I 15-8 (11) 383 U 2	12-31-64	4.5 miles fencing. (U.S. 91 - Sweetgrass S.).
	I 15-8 (11) 383 U 1	12-31-64	4.5 miles (1.2 miles four-lane divided) grade, drain, plant mix bituminous surfacing & signing. One 256 ft. prestressed concrete beam bridge - Sweetgrass Interchange. (U.S. 91 - Sweetgrass S.).
	I 15-8 (16) 383	12-31-64	4.5 miles seeding & mulching. (U.S. 90 - Sweetgrass S.).
26	I 15-1 (17) 46 U 1	12-31-64	5.3 miles grade, drain, surface, plant mix bituminous surface. One 17 ft. concrete slab junior grade separation & signing. (U.S. 91 - Armstead N.).
	I 15-1 (17) 46 U 3	12-31-64	5.3 miles fencing. (U.S. 91 - Armstead N.).
27	I 90-1 (21) 67	6-30-65	One 807 ft. continuous welded plate girder bridge - Clark Fork. (U.S. 10 - W. of Alberton).
	I 90-1 (22) 71	7-31-65	One 762 ft. continuous welded plate girder bridge - Clark Fork. (U.S. 10 - W. of Alberton).
	I-IG 90-1 (27) 65 U 1	11-15-65	6.6 miles grade, drain, aggregate & plant mix bituminous surface. Signing. (U.S. 10 - W. of Alberton).
	I-IG 90-1 (28) 72 U 1	11-15-65	3.7 miles grade, drain, aggregate & plant mix bituminous surface. Frontage road. Rest Area. Signing. (U.S. 10 - W. of Alberton).
	I-IG 90-1 (27) 65 U 2	5-30-65	6.6 miles fencing. (U.S. 10 - W. of Alberton),
	I-IG 90-1 (28) 72 U 2	5-30-65	3.7 miles fencing. (U.S. 10 - W. of Alberton).
	I-IG 90-1 (26) 66	6-30-65	Three structures. One 445 ft. steel & concrete overpass - CM&TP&P RR. and Frontage Road. One 338 ft. steel & concrete overpass NP RY. One 198 ft. prestressed concrete underpass - Fish Creek Interchange. (U.S. 10 - W. of Alberton).
	I-IG 90-1 (27) 71	12-31-64	One 190 ft. prestressed concrete beam overpass - NP RY. (U.S. 10 - W. of Alberton).
28	I 90-1 (25) 59	10-31-65	One 826 ft. welded plate girder bridge - Clark Fork. (U.S. 10 - S.E. of Superior).
	I 90-1 (24) 54	8-31-65	One 757 ft. welded plate girder bridge - Clark Fork. (U.S. 10 - S.E. of Superior).
	I 90-1 (30) 50 U 1	6-1-65	3.9 miles four-lane divided, grade, drain, aggregate surface & plant mix bituminous surface. Signing. One 17 ft. concrete junior grade separation. (U.S. 10 - S.E. of Superior).
	I 90-1 (30) 50 U 2	6-1-65	3.9 miles fencing. (U.S. 10 - S.E. of Superior).
	I 90-1 (31) 54	11-30-65	One 757 ft. continuous welded steel plate girder bridge - Clark Fork. (U.S. 10 - S.E. of Superior).
	I 90-1 (32) 59	11-30-65	One 826 ft. continuous welded steel plate girder bridge - Clark Fork. (U.S. 10 - S.E. of Superior).
29	I 94-6 (7) 216	7-15-65	4.2 miles signing. (U.S. 10 - E. of Glendive).
	I 94-6 (8) 221 U 1	7-15-65	12.8 miles grade, drain, aggregate & plant mix bituminous surface. Widen one 106 ft. - Griffith Creek. One 123 ft. prestressed concrete beam bridge - Hodges Road Separation. (U.S. 10 - E. of Glendive). Signing & delineation.
	I 94-6 (8) 221 U 2	7-15-65	12.8 miles fencing. (U.S. 10 - E. of Glendive).

MAP INDEX NUMBER	PROJECT NUMBER	PROBABLE COMPLETION DATE	LENGTH, TYPE OF CONSTRUCTION AND LOCATION
	FEDERAL AID PRIMARY PROJECTS		
101	F 33 (6) & F 108 (9)	12-31-64	8.0 miles grade, drain, aggregate & plant mix bituminous surface. (U.S. 87 - E. of Roundup).
102	F 238 (10)	10-31-66	1.9 miles grade, drain, aggregate & plant mix bituminous surface. Sign. (Montana 287 - Wolf Creek N.).
103	F 64 (10)	10-31-65	0.2 mile repair of slide drainage. (U.S. 87 - S. of Lelt).
104	F 239 (13)	9-16-65	2.2 miles (0.1 mile Portland Cement concrete pavement) grade, drain, aggregate surface & plant mix bituminous surface. (U.S. 12 - White Sulphur Springs N.E.).
	F 8 (11)	9-16-65	5.2 miles grade, drain, aggregate surface & plant mix bituminous surface. Widen 25 ft. timber bridge - Four Mile Creek to 40 ft. roadway. (U.S. 12 - White Sulphur Springs N.E.).
105	F 262 (14)	7-15-65	9.6 miles grade, drain, aggregate & plant mix bituminous surface. Two prestressed concrete beam bridges. One 162 ft. - Thompson Creek. One 442 ft. - Little Missouri River. (U.S. 212 - Wyoming Line N.W.).
106	F-FG 68 (12) U 1	12-31-64	2.7 miles (four-lane divided) grade, drain, surface, plant mix bituminous surface. Signing & delineation. (U.S. 10A-E. of Anaconda).
107	F 134 (6)	12-31-64	0.7 miles grade, drain, surface & plant mix bituminous surface. (U.S. 212 - Laurel S.).
	F 134 (7)	12-31-64	0.7 miles signing & delineation. (U.S. 212 - Laurel S.).
108	F 219 (18)	12-31-64	0.2 miles grade, drain, aggregate & plant mix bituminous surface. One 65 ft. prestressed concrete beam bridge - Rattlesnake Creek. (U.S. 10 - in Missoula).
109	F 220 (8)	7-16-65	3.3 miles grade, drain, aggregate surface, & plant mix bituminous surface. (U.S. 2 - E. of Cut Bank).
	F 134 (6)	7-16-65	4.2 miles grade, drain, aggregate surface, & plant mix bituminous surface. (U.S. 2 - E. of Cut Bank).
110	F 148 (8)	6-30-65	Three prestressed concrete beam bridges. One 172 ft. - Beaver Creek. One 355 ft. - Milk River. One 143 ft. - Milk River Overflow. (U.S. 2 - E. of Saco).
111	F 149 (19) & F 252 (15)	12-31-64	9.8 miles, grade, drain, surface & plant mix bituminous surface. (U.S. 87 - S.W. of Fort Benton).
112	F 191 (24)	8-31-65	5.9 miles grade, drain, aggregate & plant mix bituminous surfacing. (U.S. 93 - S. of Kalispell).
113	F 217 (11)	10-15-65	9.2 miles grade, drain, aggregate & plant mix bituminous surface. Relocation portion of NP RY tracks. (U.S. 89 - S. of Livingston).
114	F 205 (8) U 1	10-31-66	1.3 miles grade, drain, aggregate & plant mix bituminous surface. Signing. (U.S. 10A - New alignment - Drummond South).
	F 205 (8) U 2	10-31-65	Three prestressed concrete beam structures. One 301 ft. - Clark Fork. One 163 ft. - CMSTP&P RR. One 188 ft. - NP RY. (U.S. 10A - New alignment - Drummond South).
115	U FG 228 (16)	12-31-64	1.5 miles grade, drain, cement stabilized base, surface, concrete pavement, plant mix bituminous, seal coat oil. One concrete underpass - NP RR. (U.S. 10 - In Billings).
	F 228 (19) U 1	12-31-64	0.6 miles grade, drain, aggregate & plant mix bituminous surface. Signing & delineation. (U.S. 10 - West Billings interchange).
	F 228 (19) U 2	12-31-64	0.6 miles fencing. (U.S. 10 - West Billings interchange).
116	F 260 (10)	7-1-65	0.5 mile grade, drain, aggregate & road-mix bituminous surface. Support wall for slide area correction. (U.S. 2 - E. of West Kalispell).
117	F 115 (14)	8-4-65	8.6 miles grade, drain, aggregate & plant mix bituminous surface. Signing & lighting. (U.S. 12 - Harlowton E.)
118	F 149 (20)	12-31-64	0.4 miles signing & delineation. (U.S. 87 - N. of Great Falls).
	F 395 (3) & F 395 (5)	12-31-64	1.5 miles signing & delineation. (14th & 15th St. - In Great Falls).
	U-FG 395 (6) U 2	12-31-64	0.2 miles fencing. (14th & 15th St. - In Great Falls).
	F 149 (21) & F 395 (9)	6-1-65	Lighting & signals. (U.S. 87 & ByPass Junction - Great Falls).
	F 180 (7)	6-1-65	Lighting & signals. (U.S. 87 - E. of Great Falls).
119	F 193 (16)	9-15-65	1.6 miles grade, drain, aggregate & plant mix bituminous surface. (Montana 5 - in Plentywood).
120	F 114 (6)	12-31-64	2.4 miles signing & delineation. (U.S. 10 - Hysham connection to Interstate 94).
121	F 219 (20)	12-31-64	9.8 miles seal coat oiling. (U.S. 10A - N.W. of Missoula).
122	F 9999 (1)	12-31-64	119 miles signing. (U.S. 10, 10A, & 93 - Missoula to Kalispell).
123	F 191 (20) U 1	12-31-64	7.3 miles (2.5 miles grade & drain) surface, plant mix bituminous & seal coat oiling. (U.S. 93 - N. of Polson).
124	F 246 (13)	12-31-64	9.2 miles grade, drain, aggregate & plant mix bituminous surfacing. (Montana 208 - E.E. of Circle).
125	F 2 (17)	12-31-64	24.4 miles aggregate & plant mix bituminous surfacing. (Montana 7 - N. of Baker).
126	ER 59 (3)	7-31-65	One 183 ft. prestressed concrete beam bridge - Deep Creek. Road approaches. (Montana 287 - S. of Chuteau).
127	F 184 (15)	12-31-64	1.1 miles seeding & mulching. (U.S. 10 - N. of Deer Lodge).
128	ERFO 41 (1) **	1964	1.0 mile grade, drain, aggregate & plant mix bituminous surfacing. One 36 ft. concrete slab bridge - Cougar Creek. (U.S. 191 - N. of W. Yellowstone).
129	F 251 (11)	9-15-65	7.6 miles grade, drain, aggregate & plant mix bituminous surface. (Montana 5 - Scobey E.).
130	F 27 (6) & F 28 (5)	9-15-65	6.1 miles grade, drain, aggregate & plant mix bituminous surface. (U.S. 87 - S. of Grass Range).
131	F 43 (17)	12-31-64	15.9 miles plant mix bituminous surface. (Montana 43 - N. of Wisdom).
132	F 53 (13) & F 230 (9)	12-31-64	2.1 miles, four-lane median divided grade, drain, aggregate & plant mix bituminous surface. (U.S. 10 - Billings E.).
133	F 249 (16)	12-31-64	7.4 miles aggregate & plant mix bituminous surfacing. (U.S. 12 - E. of Garrison).
134	F 176 (7)	12-31-64	5.3 miles grade, drain, surface & plant mix bituminous surfacing. (Montana 20 - E. of Simms).
140	F 209 (4)	12-31-64	5.5 miles grade, drain, aggregate & plant mix bituminous surface. Four 20 ft. concrete bridges. (U.S. 191 - N. of Bozeman).
	FEDERAL AID SECONDARY PROJECTS		
201	S 311 (5)	12-31-64	0.9 miles grade, drain, aggregate & road mix bituminous surface. One 213 ft. prestressed concrete beam bridge - Milk River. (S. of Chinook).
	S 340 (8)	8-15-65	4.4 miles grade, drain, aggregate & plant mix bituminous surface. (S. of Chinook).
202	S 58 (6)	8-31-65	1.1 miles grade, drain, aggregate & plant mix bituminous surface. One 650 ft. welded steel plate girder bridge - Flathead River.
203	R - AD 11 (1) & S 368 (16)	9-15-65	One 128 ft. prestressed concrete beam overpass - NP RY. (Perma North). 14.9 miles grade, drain, aggregate & plant mix bituminous surface. Widen to 30 ft. roadway bridge over East Fork Cherry Creek. (Glasgow N.).
	S 368 (16)	9-15-65	14.9 miles fencing. (Glasgow N.).
204	S 316 (11)	12-31-64	7.6 miles grade, drain, aggregate & plant mix bituminous surfacing. (N. of Cut Bank).
205	S 318 (4) & S 347 (11) *	8-31-65	8.2 miles grade, drain, aggregate & plant mix bituminous surfacing. (Eskalka E.).
206	S-SG 192 (4) U 1	12-31-64	1.0 miles grade, drain, aggregate & plant mix bituminous surface. Signing & delineation. (Connection to W. Billings Interchange .
	S-SG 192 (4) U 2	12-31-64	1.0 mile fencing. (Connection to W. Billings Interchange).
	S-SG 192 (5)	12-31-64	One 190 ft. prestressed concrete beam overpass - NP RY. (S.W. of Billings).
207	S 238 (4) & S 411 (3)	8-15-65	7.9 miles grade, drain & aggregate surface. (S. of Circle).
208	S 18 (6)	12-31-64	7.3 miles grade, drain, aggregate & plant mix bituminous surface, One 112 ft. prestressed concrete beam bridge - Musselshell River. (Twodot S.).
209	FAP 11-1 (2) *	1964	32.5 miles plant mix bituminous surfacing. (U.S. 12 - Lolo to Idaho State Line).
210	S 2 (7)	6-15-65	6.2 miles aggregate & plant mix bituminous surface. (Junction Montana 20 E.).
211	ERFO 41 (1) **	1964	15.6 miles grade, drain, aggregate & plant mix bituminous surfacing. Two concrete slab bridges, 75 ft. - Grayling Creek & 124 ft. - Beaver Creek. Widen 83 ft. concrete girder bridges - Cabin Creek. (N.W. of W. Yellowstone).
212	S-SG 218 (2)	9-30-65	0.6 miles grade, drain, aggregate & plant mix bituminous surfacing. One 34 ft. concrete underpass - Dakota Street. Two 38 ft. steel underpasses - CMSTP&P RR. (Russell St. - S. of Missoula).
	S - 218 (7)	12-31-64	1.0 miles grade, drain, aggregate & plant mix bituminous surface. (Russell St. - S. of Missoula).
213	S 301 (13)	12-31-64	5.0 miles grade, drain, aggregate & plant mix bituminous surface. (N.W. of Havre).
214	S 65 (7)	12-31-64	4.9 miles aggregate & plant mix bituminous surface. (S. of Big Fork).
215	ROW S 370 (13)	12-31-64	Reset 239 rods of fencing. (W. of Wilsall).
	S 370 (15)	12-31-64	6.7 miles grade, cement stabilized base, drain, plant mix bituminous & seal coat oiling. (W. of Wilsall).
216	S 307 (14)	12-31-64	6.1 miles grade, drain, aggregate & plant mix bituminous surface. Widen three timber bridges to 28 ft. - Little Battle Creek, two 75 ft. - Butte and Cowboy Steel Creek. (S.E. of Geraldine).
	S 307 (15)	7-15-65	5.1 miles grade, drain, aggregate & plant mix bituminous surface. (S.E. of Geraldine).
217	S 264 (4)	12-31-64	Install 120" Structural Plate Pipe. (N. of Van Norman).
218	S 417 (3)	12-31-64	7.3 miles grade, drain, aggregate & plant mix bituminous surface. (S.E. of Plentywood).
219	S 85 (00) U 2 & S 85 (3) U2	12-31-64	Three prestressed concrete beam bridges. One 92 ft. & 71 ft. - Horse Prairie Creek. One 71 ft. - Medicine Lodge Creek. (Armstead N.).
220	S 192 (7)	12-31-64	3.2 miles grade, drain, aggregate & plant mix bituminous surface. (N.E. of Laurel).
221	S 410 (3)	9-1-65	6.6 miles grade and drain. (N. of Troy).
224	S 413 (3)	12-31-64	1.9 miles grade, drain, aggregate & plant mix bituminous surface. One 102 ft. prestressed concrete beam bridge - Flint Creek. (S. of Drummond E.).
	S 414 (3)	12-31-64	2.5 miles grade, drain, aggregate & plant mix bituminous surface. (S. of Drummond W.).
	S 413 (2)	12-31-64	1.9 miles fencing. (S. of Drummond E.).
	S 414 (2)	12-31-64	2.5 miles fencing. (S. of Drummond W.).
227	S 407 (2)	12-31-64	0.3 miles grade, drain & aggregate surface. One 457 ft. welded steel plate girder bridge - Clark Fork. (S.E. of Alberton).
229	S 419 (3)	11-15-65	0.9 miles grade, drain, aggregate surface. 0.7 miles plant mix bituminous surface. (Approach I 40 Separation - W. of Alberton).
236	S 9 (10)	12-31-64	3.7 miles reshape, aggregate & plant mix bituminous surface. (S. of Boulder).
237	S 107 (9)	12-31-64	7.0 miles grade, drain, aggregate & plant mix bituminous surface. Widen timber bridge to 32 ft. roadway. (N.E. of Conrad).
238	S 400 (3)	12-31-64	6.4 miles grade & drain. (S. of Hamilton E.).
	S 400 (4)	12-31-64	6.4 miles aggregate & plant mix bituminous surface. (S. of Hamilton E.).
239	S 426 (3)	12-31-64	One 198 ft. prestressed concrete beam bridge - Gallatin River. (N.E. of Manhattan).
240	S 435 (3)	12-31-64	6.0 miles grade, drain, aggregate surface. One 92 ft. prestressed concrete beam bridge - Lake Creek. (E. of Medicine Lake).
241	S 194 (4)	6-30-65	0.3 miles grade, drain, aggregate surface. One 225 ft. prestressed concrete beam bridge - Hot Elder Creek. (E. of Eskalka).
242	S 243 (3)	7-31-65	6.5 miles grade, drain, aggregate & plant mix bituminous surface. (S. of Bozeman).
243	S 388 (5)	9-15-65	9.5 miles grade, drain, & aggregate surface. (NE. of Miles City).
244	US 70 (4)	12-31-64	0.7 miles grade, drain, aggregate & plant mix bituminous surface. (Fifth Avenue in Havre).
248	S 402 (3)	12-31-64	7.8 miles grade, drain, surface, plant mix bituminous & seal coat oiling. (N.E. of Culbertson).
	NFF SYSTEM PROJECTS		
301	GNP 8-A4 *	1965	One 403 ft. prestressed concrete beam bridge - N. Fk. Flathead River. (In Glacier Park).
	GNP 8-A5 *	1965	8.5 miles grade, drain & base. (In Glacier Park).

* - Bureau of Public Roads Projects.
** - Bureau of Public Roads Projects. - Map Index Numbers 128 & 211 one contract.

SERVICE AWARDS

The September Service Awards show a total of 170 years of service to the State.

Heading the list is Wm. A. Sanden and Wm T. Chubb with 35 years each. 15-year pins went to Donald Gene Merrell and Beauford E. Goodland. James Michael Latsch, Calvin S. Blatter, and Harold F. Benefiel are each 10-year men, and the 5-year service awards go to Joseph R. Regner, Frank G. Miller, Lloyd E. Martin, Guy Ernest Hancock, John Datta, John R. Cameron, George L. Buckman, and Gale C. Abrams.

ANOTHER COMPLIMENTARY LETTER

August 11, 1964

C. L. Fitzsimmons
Highway Department
Butte, Montana

Dear Mr. Fitzsimmons:

The members of the Melrose Grange wish to thank you and your men for the fine oil job on the highway through Melrose and especially on the three approaches into Melrose. The entire community benefits from this.

A month ago, when we wrote you we also wrote Mr. Zibtnoff, the county surveyor. We have not yet heard from him, and the highway has already done its work. Thank you for the speedy and good job. All who use the highway and approaches, appreciate it.

Sincerely,
Joan Marie Connor, Secy.
Melrose Grange, No. 143.

A. W. Jones, Bridge Engineer, who was taken ill last month at Polson, during a hearing, reports to Centerline via a letter which we reproduce here.

Dear Friends:

Your bouquet of yellow, red and white glads and red carnations were so very pretty and made the hospital room more cheerful for everyone.

Your get-well wishes and your kindness was appreciated by Deeo and myself.

Yours sincerely,

Bill

Congratulations to Mr. and Mrs. Jim Hinkle, the proud parents of a bouncing baby boy.

Congratulations to Richard Fransen on receiving his 10-year Service Award pin. (Erroneously reported as a five-year award in the last Centerline news).

Jocko Cloud shows a 18½ and a 30 lb. Chinook King Salmon that "didn't get away" on a recent fishing excursion to the Seattle area. These are but a few that were caught by a group of State Employees that got together for this special fishing trip. Looks like some mighty good eatin' for this winter.

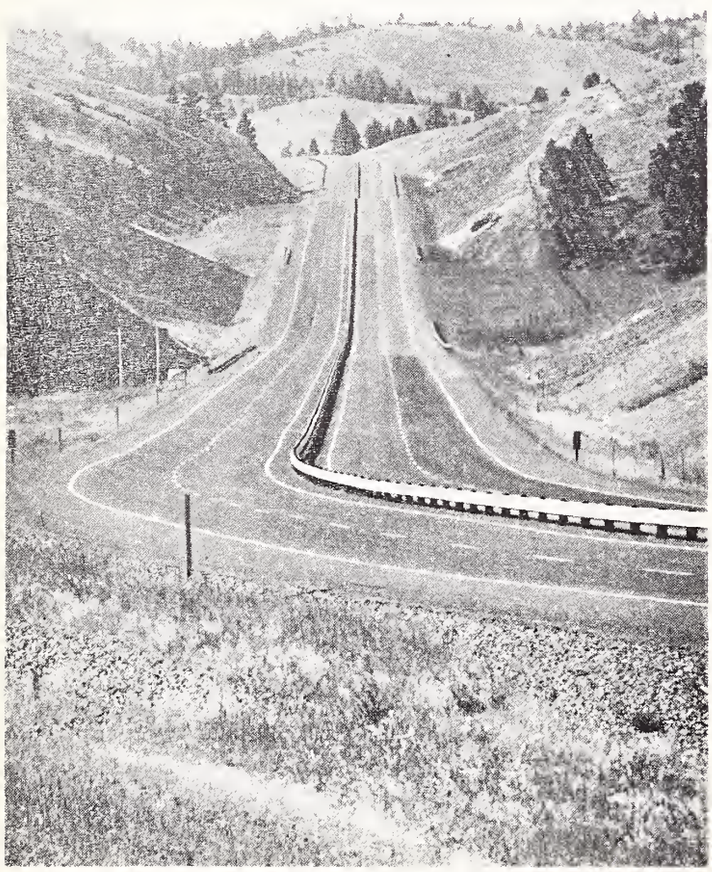
HAVRE

Many fine beards were grown in connection with Montana's Centennial celebration, but those grown by George Allison and Carl Winter are undoubtedly the best. We are proud to present the picture of these distinguished looking gentlemen.

Congratulations once again to Florence Timmons for winning the Ladies' Championship of the Labor Day Golf Tournament at Havre. Florence also won the tournament last year.

* * * *

Congratulations to Samuel Hatty, IV, son of Project Engineer Samuel Hatty of Havre. Young Sam recently received his Eagle award, the highest in Scouting, at Camp Napi overlooking Lower St. Mary's Lake. Sam Senior has been active in Boy Scout leadership for many years and should be commended for his work in the Boy Scout movement.



Photographer Walt Sill can be compared with the postman who takes a walk on his day off. Walt took his camera on a Sunday drive recently, and snapped this picture of Interstate 15 near the Gates of the Mountains, north of Helena.

W. B. Huffine of the Bureau of Public Roads in Washington, D. C., has notified us that he has recently retired from the Civil Service and the Army at age 55.

He is now making his home in Shell Beach, California, and sends greetings to his Montana friends.

MONTANA GAS TAX COMPARED

Twenty-four states have a higher state gas tax than Montana, the State Highway Department reported recently.

Montana and 22 other states collect six cents a gallon. Seven states have a lower gas tax.

States that collect five cents include Hawaii, Illinois, Kansas, Missouri, Texas and Wyoming. Massachusetts collects 5.5 cents.

States collecting six cents include Arizona, Colorado, Connecticut, Deleware, (District of Columbia), Idaho, Indiana, Iowa, Michigan, Minnesota, Montana, Nevada, New Jersey, New Mexico, New York, North Dakota, Oregon, South Dakota, Utah and Wisconsin. Three states, Arkansas, Georgia, and Vermont charge 6.5 cents. One state, Oklahoma, charges 6.58 cents.

Alabama, California, Florida, Kentucky, Louisiana, Maine, Maryland, Mississippi, Nebraska, New Hampshire, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia, and West Virginia collect seven cents. Washington collects 7.5 cents. Alaska collects 8 cents.

In addition, several states have counties or municipalities which levy local taxes ranging up to three cents per gallon.

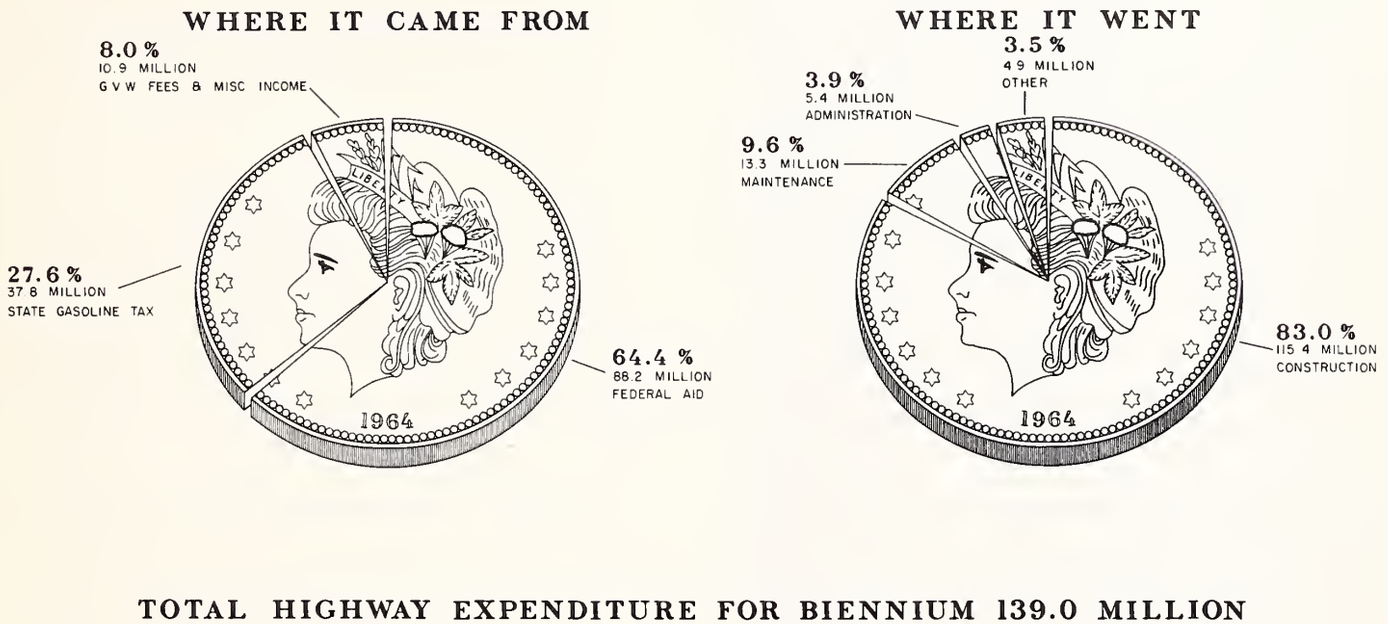
INCOME FROM MOTOR FUEL TAX UP

Income from Motor Fuel Tax in Montana for 1964 is slightly ahead of 1963, according to the report of the Montana Highway Commission.

Income from September totalled $2,441,-170, bringing the total for the year to $16,-317,824, or 0.79%.

The gallonage represented is 263,903,374 of which 229,051,410 is taxable. Refunds have been made on 28,779,618 gallons, leaving a total for 1964 of 229,081,410 gallons on which a tax has been deposited in the Montana Highway Fund.

THE HIGHWAY DOLLAR



TOTAL HIGHWAY EXPENDITURE FOR BIENNIUM 139.0 MILLION

This chart shows the source of Highway Revenues for the Biennium ending June 30, 1964, and where the money was spent.

SOME INTERESTING FACTS

—The fatality rate is highest at very high speeds, but it is lowest not at the lowest speeds but at average speeds. This is consistent with the relationship between accident rate and the difference or variance of speed from the average on the highway.

—Passenger car drivers under age 25 and over 65 were more likely to be involved in accidents than middle-aged drivers.

—While during the day there was little difference in accident involvment between drivers of automobiles and large trucks (with six or more tires), at night automobile drivers were involved in accidents at three times the rate of drivers of large trucks.

—Drivers of low-powered automobiles were in accidents more than drivers of higher-powered cars, and drivers of older cars had higher involvment rates than drivers of newer cars. There was no indication that the make of any car had any noticeable effect on accident involvement rate.

—Nearly half of all accident involvements were either rear-end collisions or same-direction sideswipes. At higher speeds, these types of accidents became less and less frequent, while a larger proportion were single-vehicle non-collision accidents. This type constituted half of all accident involvements at 80 mph. At no speed did head-on collisions form more than 20 per cent of the total.

—Accidents involving many vehicles, though spectacular, were relatively rare. For example, one per cent of all accidents involved four or more vehicles, and less than 0.1 per cent involved six or more.

This Montana Highway Department Aerial photo shows the completed portion of Highway 12, East of Townsend, as it enters Deep Creek valley. Townsend is in the upper right corner of the photo. This 6.3 mile project was recently completed at a cost of $697,471 and included curbings and paving of the main street of Townsend.

BIGGEST PAY DAY IN HISTORY

The Montana Highway Department announced today that the week ending October 23 was the biggest 'payday' in the history of the Department.

During the week, a total of $3,160,707.32 was paid out to contractors with highway jobs.

The previous high week was earlier this fall when slightly more than $2½ million was paid out.

ZIP CODE NUMBERS NEEDED

We still need your Zip Code number. The post office department has asked that we endeavor to use the ZIP number whenever possible. Therefore, to bring our mailing list up-to-date, won't you please take time to send us your ZIP number?

Use the convenient clip-out form and mail it to:

CENTERLINE
Montana Highway Dept.
Helena, Montana 59601

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Address.....

City and State.....

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The Center Line
STATE HIGHWAY DEPARTMENT
Helena, Montana 59601

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